

**Bay Area Air Quality Management District**

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**Permit Evaluation  
and  
Statement of Basis  
for  
MAJOR FACILITY REVIEW PERMIT**

**for  
Gaylord Container Corporation  
Facility #A2180**

**Facility Address:**  
1779 Wilbur Avenue  
Antioch, CA 94509

**Mailing Address:**  
P.O. Box 10  
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## TABLE OF CONTENTS

A.	Background .....	3
B.	Facility Description .....	4
C.	Permit Content.....	4
I.	Standard Conditions.....	5
II.	Equipment .....	5
III.	Generally Applicable Requirements .....	6
IV.	Source-Specific Applicable Requirements .....	7
V.	Schedule of Compliance .....	8
VI.	Permit Conditions .....	8
VII.	Applicable Limits and Compliance Monitoring Requirements .....	10
VIII.	Test Methods.....	14
IX.	Permit Shield: .....	14
D.	Alternate Operating Scenario: .....	15
E.	Compliance Status:.....	15
F.	Differences Between the Application and the Proposed Permit: .....	15

## **Title V Statement of Basis**

### **A. Background**

This facility is subject to the Operating Permit requirements of Title V of the federal Clean Air Act, Part 70 of Volume 40 of the Code of Federal Regulations (CFR), and BAAQMD Regulation 2, Rule 6, Major Facility Review because it has the potential to emit 100 tons per year or more each of nitrogen oxides (NO<sub>x</sub>) and carbon monoxide (CO).

Major Facility Operating permits (Title V permits) must meet specifications contained in 40 CFR Part 70. The permits must contain all applicable requirements (as defined in 40 CFR § 70.2), monitoring requirements, recordkeeping requirements, and reporting requirements. The permit holders must submit reports of all monitoring at least every six months and compliance certifications at least every year.

In the Bay Area, state and District requirements are also applicable requirements and are included in the permit. These requirements can be federally enforceable or non-federally enforceable. All applicable requirements are contained in Sections I through VI of the permit.

Each facility in the Bay Area is assigned a facility number that consists of a letter and a 4-digit number. This facility number is also considered to be the identifier for the permit.

#### Title V Permitting History

A Proposed Title V permit for Site A2180 "Gaylord Container Corporation" was initially noticed for public comment on June 1, 2000. One of the comments questioned the validity of the reported formaldehyde emissions associated with the Gas Turbine S-35 and the applicability of federal MACT standards for that source. Another comment brought to light the fact that Gaylord's recycled papermaking operation had the potential to emit significant quantities of volatile organic compounds (VOC) and hazardous air pollutants (HAP) and should therefore be required to obtain a District operating permit. Based on these comments, the District decided to withhold the issuance of the permit until such time as the formaldehyde emissions from the gas turbine had been retested and a permit had been obtained for the papermaking operations.

Formaldehyde emissions from the Gas Turbine S-35 were retested on January 12, 2001 and were found to be lower than what was reported in the initial Title V application. Based on the formaldehyde source test results and the combined toxic emission factors for natural gas fired turbines from the California Air Toxics Emission Factors (CATEF) database, the District is confident that the Gas Turbine S-35 will not emit an individual HAP in a quantity equal to or greater than 10 tons/yr or a combination of HAPs equal to or greater than 25 tons/yr. Therefore, the federal MACT standards are not triggered for the gas turbine.

The District issued a Permit to Operate for the #4 Paper Machine, S-50 on November 7, 2001. Shortly after the permit was issued, Inland Paperboard and Packaging, Inc purchased Gaylord Container Corporation and there was speculation that operations at Site A2180 would soon cease. As a result, the District gave the issuance of the modified Title V permit for Site A2180 a low priority and the permit was not issued. Papermaking operations at Site A2180 ceased in September of 2002 and the power plant was shut down in October 2002.

On January 17, 2003, the District was notified by Farella, Braun, & Martel (on behalf of Gaylord Container Corp.) that Gaylord (Inland) would retain all existing operating permits even though Gaylord's operations at the facility had permanently ceased. On January 22, 2003 Harbert Power Corporation notified the District that they had an agreement in principal to purchase the Antioch Paper Mill from Inland and requested that all permits for Site A2180 be transferred to them under the new name "Harbinger Independent Power Fund II, LLC". The District completed the transfer of ownership on May 7, 2003. However, since as of the date of public notification Gaylord (Inland) is still the legal owner of the facility, the proposed Title V permit is for Gaylord Container Corporation. The District intends to issue the final Title V permit to the legal owner of the facility as of the issuance date.

## **B. Facility Description**

Site A2180 is located at 1779 Wilbur Avenue, Antioch in northern Contra Costa County. As the operator, Gaylord Container was primarily engaged in the manufacture of unbleached linerboard paper from recycled corrugated containers. However, they also operated a qualifying cogeneration facility, generating electricity for sale to Pacific Gas and Electric Corporation (PG&E) and providing process heat for on-site use. Gaylord also operated a wastewater treatment facility to treat wastewater from the papermaking operations.

It is the intention of Harbert Power to transform Site A2180 from a paper manufacturer into a power plant. All papermaking operations have been permanently shut down and the intended primary business for the facility will be selling electricity to PG&E.

## **C. Permit Content**

The legal and factual basis for the permit follows. The permit sections are described in the order that they are presented in the permit. Changes to the standard permit text have been made since the initial Proposed Title V Permit for this site was released for public comment. These changes are reflected in the new proposed permit. The strikeout/underline text from the initial proposed permit does not appear in this version, nor does any reference to equipment that has been decommissioned as a result of the change of ownership and no longer has BAAQMD permits. Changes that have been made to the permit since the initial proposal, including the addition of new equipment and changes to the requirements for existing sources, are shown in strikeout/underline format.

## **I. Standard Conditions**

This section contains administrative requirements and conditions that apply to all facilities. If the Title IV (Acid Rain) requirements for certain fossil-fuel fired electrical generating facilities or the accidental release (40 CFR § 68) programs apply, the section will contain a standard condition pertaining to these programs. Many of these conditions derive from 40 CFR § 70.6, Permit Content, which dictates certain standard conditions that must be placed in the permit. The language that the District has developed for many of these requirements has been adopted into the BAAQMD Manual of Procedures, Volume II, Part 3, Section 4, and therefore must appear in the permit.

The standard conditions also contain references to BAAQMD Regulation 1 and Regulation 2. These are the District's General Provisions and Permitting rules.

Condition I.J has been added to clarify that the capacity limits shown in Table II-A are enforceable limits.

## **II. Equipment**

This section of the permit lists all permitted or significant sources. Each source is identified by an S and a number (e.g., S-24).

Permitted sources are those sources that require a BAAQMD operating permit pursuant to BAAQMD Rule 2-1-302.

Significant sources are those sources that have a potential to emit of more than 2 tons of a "regulated air pollutant," as defined in BAAQMD Rule 2-6-222, per year or 400 pounds of a "hazardous air pollutant," as defined in BAAQMD Rule 2-6-210, per year.

All abatement (control) devices that control permitted or significant sources are listed. Each abatement device is identified by an A and a number (e.g., A-24). If a source is also an abatement device, such as when an engine controls VOC emissions, it will have an "S" number.

The equipment section is considered to be part of the facility description. It contains information that is necessary for applicability determinations, such as fuel types, contents or sizes of tanks, etc. This information is part of the factual basis of the permit.

Each of the permitted sources has previously been issued a permit to operate pursuant to the requirements of BAAQMD Regulation 2, Permits. These permits are issued in accordance with state law and the District's regulations. The capacities in this table are the maximum allowable capacities for each source, pursuant to Standard Condition I.J and Regulation 2-1-403.

The following sources and abatement devices, included in the initial Title V application for Gaylord Container Corp., have been decommissioned by Gaylord and Harbinger Independent Power Fund II and are no longer part of the permitted equipment at Site A2180:

Sources:

- S-1: Steam Generator Boiler
- S-31: Lime Storage Tank
- S-32: Silo #1 – Starch Storage
- S-33: Silo #2 – Starch Storage
- S-34: Silo #3 – Starch Storage
- S-38: Equalization Pond
- S-39: Unox Water Treatment, East
- S-40: Unox Water Treatment, West
- S-41: Secondary Clarifier, East
- S-42: Secondary Clarifier, West
- S-43: Sludge Holding Tank
- S-44: Sludge Dewatering Press
- S-45: Sludge Dewatering Press
- S-46: Sandblasting Pot
- S-47: Paint Spray Operation – Air Compressor with Spray Guns

Abatement Devices:

- A-7: Dust Collector
- A-8: Dust Collector

The following sources that were issued permits after the initial Title V application have also been decommissioned by Harbinger and are no longer part of the permitted equipment at Site A2180:

- S-49: Primary Effluent Treatment Clarifier
- S-50: #4 Paper Machine

The following sources that were issued permits after the initial Title V application will be retained as permitted sources by Harbinger:

- S-52: Emergency Generator – Diesel IC Engine
- S-53: Emergency Generator – Diesel IC Engine
- S-54: Emergency Generator – Diesel IC Engine

### **III. Generally Applicable Requirements**

This section of the permit lists requirements that generally apply to all sources at a facility including insignificant sources and portable equipment that may not require a District permit. If a generally applicable requirement applies specifically to a source that is permitted or significant, the standard will also appear in Section IV and the monitoring for that requirement will appear in Sections IV and VII of the permit. Parts of this section apply to all facilities (e.g., particulate, architectural coating, odorous substance, and sandblasting standards). In addition, standards that apply to insignificant or unpermitted sources at a facility (e.g., refrigeration units that use more than 50 pounds of an ozone-depleting compound), are placed in this section.

Unpermitted sources are exempt from normal District permits pursuant to an exemption in BAAQMD Regulation 2, Rule 1. They may, however, be specifically described in a Title V permit if they are considered a significant source pursuant to the definition in BAAQMD Rule 2-6-239. This facility does not have any significant sources that do not have District permits.

#### **IV. Source-Specific Applicable Requirements**

This section of the permit lists the applicable requirements that apply to permitted or significant sources. These applicable requirements are contained in tables that pertain to one or more sources that have the same requirements. The order of the requirements is:

- District Rules
- SIP Rules (if any) listed following the corresponding District Rules. SIP rules are District rules that have been approved by EPA into the California State Implementation Plan. SIP rules are “federally enforceable” and a “Y” (yes) indication will appear in the “Federally Enforceable” column. If the SIP rule is the current District rule, separate citation of the SIP rule is not necessary and the “Federally Enforceable” column will have a “Y” for “yes”. If the SIP rule is not the current District rule, the SIP rule or the necessary portions of the SIP rule are cited separately after the District rule. The SIP portions will be federally enforceable; the non-SIP versions will not be federally enforceable, unless EPA has approved them through another program.
- Other District requirements, such as the Manual of Procedures, as appropriate.
- Federal requirements (other than SIP provisions)
- BAAQMD permit conditions. The text of BAAQMD permit conditions is found in Section VI of the permit.
- Federal permit conditions. The text of Federal permit conditions, if any, is found in Section VI of the permit.

Section IV of the permit contains citations to all of the applicable requirements. The text of the requirements is found in the regulations, which are readily available on the District’s or EPA’s websites, or in the permit conditions, which are found in Section VI of the permit. All monitoring requirements are cited in Section IV. Section VII is a cross-reference between the limits and monitoring requirements. A discussion of monitoring is included in Section C.VII of this permit evaluation/statement of basis.

#### **Complex Applicability Determination**

In accordance with 40 CFR Part 72, fossil fuel fired electrical generating facilities may be subject to the requirements of the Acid Rain Program. However, 40 CFR 72.6(b)(5) exempts “qualifying cogeneration facilities” (as described by Section 3(18)(B) of the Federal Power Act) if as of November 15, 1990 they had one or more qualifying power purchase commitments to sell at least 15 percent of their total planned net output capacity and they maintain the total installed net output capacity at or below 130 percent of the total planned net output capacity.

The power generating equipment at this site was initially certified as a qualifying cogeneration facility by the Federal Energy Regulatory Commission (FERC) in 1983 when it was owned by Crown Zellerbach. The equipment was recertified in 1986 after being purchased by Gaylord Container. On May 16, 2003, FERC again recertified the power plant as a qualifying cogeneration facility following application for certification by Harbert Power Corporation.

Pursuant to its qualifying cogeneration facility status, Site A2180 as operated by Harbinger Independent Power Fund II is exempt from the Acid Rain Program per 40 CFR 72.6(b)(5) as follows:

- Pacific Gas and Electric (PG&E) has a 30 year contract (initiated in 1983) to receive power from the facility, which Harbinger Independent Power Fund II intends to maintain at a level above 15 percent of the total planned net output capacity of the facility.
- The total installed net electrical output capacity of the power generating equipment is at or below 130 percent of the total planned net output capacity.

## **V. Schedule of Compliance**

A schedule of compliance is required in all Title V permits pursuant to BAAQMD Regulation 2-6-409.10 which provides that a major facility review permit shall contain the following information and provisions:

“409.10 A schedule of compliance containing the following elements:

- 10.1 A statement that the facility shall continue to comply with all applicable requirements with which it is currently in compliance;
- 10.2 A statement that the facility shall meet all applicable requirements on a timely basis as requirements become effective during the permit term; and
- 10.3 If the facility is out of compliance with an applicable requirement at the time of issuance, revision, or reopening, the schedule of compliance shall contain a plan by which the facility will achieve compliance. The plan shall contain deadlines for each item in the plan. The schedule of compliance shall also contain a requirement for submission of progress reports by the facility at least every six months. The progress reports shall contain the dates by which each item in the plan was achieved and an explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.”

Since the District has not determined that the facility is out of compliance with an applicable requirement, the schedule of compliance for this permit only contains elements 2-6-409.10.1 and 2-6-409.10.2.

## **VI. Permit Conditions**

During the Title V permit development, the District has reviewed the existing permit conditions, deleted the obsolete conditions, and as appropriate, revised the conditions for clarity and enforceability. Each permit condition is identified with a unique numerical identifier, up to five digits.

Where necessary to meet Title V requirements, additional monitoring, recordkeeping, or reporting has been added to the permit.

Changes that have been made to existing permit conditions since the initial Title V public notice for this site are clearly shown in “strike-out/underline” format in the proposed permit. When the permit is issued, all ‘strike-out’ language will be deleted; all “underline” language will be retained.

The existing permit conditions are generally derived from previously issued District Authorities to Construct (A/C) or Permits to Operate (P/O). It is also possible for permit conditions to be

imposed or revised as part of the annual review of the facility by the District pursuant to California Health and Safety Code (H&SC) § 42301(e), through a variance pursuant to H&SC § 42350 *et seq.*, an order of abatement pursuant to H&SC § 42450 *et seq.*, or as an administrative revision initiated by District staff. After issuance of the Title V permit, permit conditions will be revised using the procedures in Regulation 2, Rule 6, Major Facility Review.

Conditions that are obsolete or that have no regulatory basis have been deleted from this permit.

The regulatory basis has been referenced following each condition. The regulatory basis may be a rule or regulation. The District is also using the following codes for regulatory basis:

- BACT: This code is used for a condition imposed by the APCO to ensure compliance with the Best Available Control Technology in Regulation 2-2-301.
- Cumulative Increase: This code is used for a condition imposed by the APCO, which limits a source's operation to the operation described in the permit application pursuant to BAAQMD Regulation 2-1-403.
- Offsets: This code is used for a condition imposed by the APCO to ensure compliance with the use of offsets for the permitting of a source or with the banking of emissions from a source pursuant to Regulation 2, Rules 2 and 4.
- PSD: This code is used for a condition imposed by the APCO to ensure compliance with a Prevention of Significant Deterioration permit pursuant to Regulation 2, Rule 2.
- TRMP: This code is used for a condition imposed by the APCO to ensure compliance with limits that arise from the District's Toxic Risk Management Policy.

Since the initial public notice for the Proposed Title V Permit for this site, the following change has been made to the permit conditions for the Gas Turbine S-35 and Duct Burners S-36:

#### Condition #249

Part 8: This part was added to allow the use of a custom fuel monitoring schedule for natural gas sulfur and nitrogen content, pursuant to 40CFR 60.334(b)(1) and the August 14, 1987 memorandum from John Rasnic of USEPA.

Part 9: This part (formerly part 8) was slightly modified to correspond to the addition of the new part 8 discussed above.

#### Condition #19254

This permit condition was added for the Diesel Powered Emergency Generators S-52, S-53, and S-54. The condition uses the District's standardized text for diesel powered standby generators.

## VII. Applicable Limits and Compliance Monitoring Requirements

This section of the permit is a summary of numerical limits and related monitoring requirements that apply to each source. The summary includes a citation for each monitoring requirement, frequency, and type. The applicable requirements for monitoring are completely contained in Sections IV, Source-Specific Applicable Requirements, and VI, Permit Conditions, of the permit.

The District has the authority to impose additional monitoring where: (1) the existing applicable requirement does not require monitoring AND (2) monitoring is necessary to assure compliance with such applicable requirement.

The tables below show the limits that, prior to incorporation in the Title V permit, lack periodic monitoring requirements. Additional monitoring, if any, imposed pursuant to Title V is shown in the last column. The basis for the monitoring decision is present in the discussion following each table. Applicable limits not shown in the following tables have adequate monitoring, and so no additional monitoring is being proposed in the Title V permit.

### PM Sources

S# & Description	Emission Limit Citation	Federally Enforceable Emission Limit	Monitoring
<b>COMBUSTION TURBINE:</b> S-35	BAAQMD Regulation 6-301	Ringelmann 1.0	None
	BAAQMD Regulation 6-310.3	0.15 gr/dscf @ 6% O <sub>2</sub>	None
<b>DUCT BURNER</b> S-36	BAAQMD Regulation 6-301	Ringelmann 1.0	None
	BAAQMD Regulation 6-310.3	0.15 gr/dscf @ 6% O <sub>2</sub>	None
<b>DIESEL IC ENGINES FOR EMERGENCY POWER</b> S-52, S-53, S-54	BAAQMD Regulation 6-303.1	Ringelmann 2.0	None
	BAAQMD Regulation 6-310	0.15 gr/dscf @ 0% O <sub>2</sub>	None

### PM Discussion:

#### S-35: Gas Turbine; 37.1 MW, 457 MMBTU/hr

##### Visible Emissions

BAAQMD Regulation 6-301 limits visible emissions to no darker than 1.0 on the Ringelmann Chart (except for periods or aggregate periods less than 3 minutes in any hour). The Gas Turbine S-35 is required by a federally enforceable permit condition to fire only natural gas except during periods of PG&E curtailment. Therefore, because visible emissions are not normally associated with the proper combustion of natural gas, periodic monitoring for

Ringelmann limits would not be appropriate for this source. Although backup distillate oil combusted at the turbine during a curtailment period would likely have the potential to emit more particulate than natural gas, the amount is still quite small (as evidenced by the particulate weight limitation discussion below) and would be unlikely to violate the Ringelmann 1.0 standard.

#### Particulate Weight Limitation

BAAQMD Regulation 6-310.3 limits filterable particulate (FP) emissions from any heat transfer operation to 0.15 grains per dry standard cubic foot (gr/dscf) of exhaust volume corrected to 6% excess oxygen. Using the AP-42 filterable PM factors for natural gas and distillate oil from Table 3.1-2a "Emission Factors For Criteria Pollutants and Greenhouse Gases from Stationary Gas Turbines" (i.e. 1.9 E-03 lb/MMBTU, natural gas-fired turbines, 4.3 E-03 lb/MMBTU, distillate oil-fired turbines), the maximum estimated PM emission rates for S-35 are as follows:

$$(1.9 \text{ E-03 lb PM/MMBTU natural gas}) * (7000 \text{ gr/lb}) / (12,194 \text{ dscf combustion products @ } 6\% \text{ O}_2/\text{MMBTU natural gas}) = 0.001 \text{ gr/dscf @ } 0\% \text{ O}_2 \text{ (for natural gas combustion)}$$

$$(4.3 \text{ E-03 lb PM/MMBTU distillate oil}) * (7000 \text{ gr/lb}) / (12,866 \text{ dscf combustion products @ } 6\% \text{ O}_2/\text{MMBTU distillate oil}) = 0.002 \text{ gr/dscf @ } 0\% \text{ O}_2 \text{ (for distillate oil combustion)}$$

Since the Regulation 6-310 grain-loading limit (0.15 gr/dscf) is far above any expected PM emissions from the Gas Turbine S-35, compliance is assumed. It would therefore not be appropriate to add periodic monitoring for this standard.

#### **S-52, S-53, S-54: Diesel IC Engines for Emergency Power Generation**

Due to the sporadic and infrequent nature of the usage of standby power generation, the District has determined that the addition of periodic monitoring for the Regulation 6 visible emissions and particulate weight limits is not appropriate.

#### **SO<sub>2</sub> Sources**

<b>S# &amp; Description</b>	<b>Emission Limit Citation</b>	<b>Federally Enforceable Emission Limit</b>	<b>Monitoring</b>
<b>COMBUSTION TURBINE: S-35</b>	BAAQMD Regulation 9-1-301	Ground Level Concentrations: 0.5 ppm for 3 consecutive minutes, 0.25 ppm averaged over 60 consecutive minutes, 0.05 ppm averaged over 24 hours	None
	BAAQMD Regulation 9-1-302	300 ppm (dry) general emission limitation	None
	BAAQMD Regulation 9-1-304	Fuel Sulfur Limit 0.5% (liquid fuels)	Vendor fuel certification

<b>S# &amp; Description</b>	<b>Emission Limit Citation</b>	<b>Federally Enforceable Emission Limit</b>	<b>Monitoring</b>
	40 CFR 60 Subpart GG 60.333 (a)	0.015% (vol) @ 15% O2 (dry)	Vendor fuel certification for liquid fuels (subsumed requirement)
	40 CFR 60 Subpart GG 60.333 (b)	0.8% (wt) fuel sulfur content	Vendor fuel certification for liquid fuels (subsumed requirement)
<b>DUCT BURNER</b> S-36	BAAQMD Regulation 9-1-301	Ground Level Concentrations: 0.5 ppm for 3 consecutive minutes, 0.25 ppm averaged over 60 consecutive minutes, 0.05 ppm averaged over 24 hours	None
	BAAQMD Regulation 9-1-302	300 ppm (dry) general emission limitation	None
<b>DIESEL IC ENGINES FOR EMERGENCY POWER</b> S-52, S-53, S-54	BAAQMD 9-1-304	Fuel Sulfur Content Limit: ≤ 0.5% sulfur by weight	Vendor fuel certification

## **SO2 Discussion:**

### BAAQMD Regulation 9-1-301

Area monitoring to demonstrate compliance with the ground level SO2 concentration requirements of Regulation 9-1-301 is at the discretion of the APCO (per BAAQMD Regulation 9-1-501). This facility does not have equipment that emits large amounts of SO2 and therefore is not required to have ground level monitoring by the APCO.

### BAAQMD Regulation 9-1-302

All natural gas combustion sources at the facility are subject to the 300 ppm (dry) SO2 emission limit in District Regulation 9-1-302. In EPA's June 24, 1999 agreement with CAPCOA and ARB, "Periodic Monitoring Recommendations for Generally Applicable Requirements in SIP", EPA has agreed that natural-gas-fired combustion sources do not need additional monitoring to verify compliance with BAAQMD Regulation 9-1-302, since violations of the regulation are unlikely. Therefore, no monitoring is necessary for this requirement.

### BAAQMD Regulation 9-1-304

Per the CAPCOA/ARB/EPA Agreement of 6/24/99 entitled "Periodic Monitoring Recommendations For Generally Applicable Requirements in SIP", vendor fuel sulfur content certifications for liquid fuels will provide sufficient assurances of compliance with SO2 emissions limits. Compliance with Diesel fuel sulfur limits in BAAQMD Regulation 9-1-304

Permit Evaluation and Statement of Basis: Site A2180, Gaylord Container Corp.  
1779 Wilbur Ave., Antioch, CA

and BAAQMD Conditions #249, part 2 and #19254, part 5 will be assured by certification of the sulfur content by the fuel supplier for each fuel delivery.

### **NOx Sources**

<b>S# &amp; Description</b>	<b>Emission Limit Citation</b>	<b>Federally Enforceable Emission Limit</b>	<b>Monitoring</b>
<b>COMBUSTION TURBINE:</b> S-35	40 CFR 60 Subpart Db, 60.44b (a)(4)(i)	0.20 lb/MMBTU, natural gas	None
<b>DUCT BURNER</b> S-36	40 CFR 60 Subpart Db, 60.44b (a)(4)(i)	0.20 lb/MMBTU, natural gas	None
	BAAQMD Condition #249, part 4	30 ppmv @ 15% O <sub>2</sub> (dry) 3 hour rolling average	None

### **NOx Discussion:**

#### **40 CFR 60 Subpart Db, 60.44b (a)(4)(i)**

The 0.20 lb/MMBTU NOx emission limit that applies to the Duct Burner S-36 and to the Combustion Turbine S-35 (because emissions are combined) does not need additional monitoring because the combined NOx emissions from S-35 and S-36 are subject to a more stringent limit. BAAQMD Condition #249, part 5 limits combined NOx emissions to 19 ppmvd @ 15% oxygen. Since this limit is equivalent to a NOx emission rate of 0.07 lb/MMBTU, compliance with BAAQMD Condition #249, part 5 demonstrates compliance with the Subpart Db NOx limit.

#### **BAAQMD Condition #249, part 4**

The 30 ppmv @ 15% oxygen (dry) NOx limit that applies to the Duct Burner S-36 does not require monitoring because it can not be individually demonstrated. The Duct Burner can not operate independently of the Combustion Turbine. The 19 ppmv @ 15% oxygen (dry) combined NOx limit in BAAQMD Condition #249, part 5.b. accounts for the 30 ppmvd Duct Burner limit.

### **VIII. Test Methods**

This section of the permit lists test methods that are associated with standards in District or other rules. It is included only for reference. In most cases, the test methods in the rules are source test methods that can be used to determine compliance but are not required on an ongoing basis. They are not applicable requirements.

If a rule or permit condition requires ongoing testing, the requirement will also appear in Section VI of the permit.

### **IX. Permit Shield:**

The District rules allow two types of permit shields. The permit shield types are defined as follows: (1) A provision in a major facility review permit that identifies and justifies specific federally enforceable regulations and standards which the APCO has confirmed are not applicable to a source or group of sources, or (2) A provision in a major facility review permit that identifies and justifies specific federally enforceable applicable requirements for monitoring,

recordkeeping and/or reporting which are subsumed because other applicable requirements for monitoring, recordkeeping, and reporting in the permit will assure compliance with all emission limits.

The second type of permit shield is allowed by EPA's White Paper 2 for Improved Implementation of the Part 70 Operating Permits Program. The District uses the second type of permit shield for all streamlining of monitoring, recordkeeping, and reporting requirements in Title V permits. The District's program does not allow other types of streamlining in Title V permits.

No permit shields were specifically requested by the applicant. However, pursuant to District Regulations 2-6-233 and 2-6-409.12, it has been determined that several monitoring requirements applicable to the Gas Turbine S-35 can be subsumed because other applicable requirements in the permit will assure compliance with all applicable emission limits. For example, NSPS parameter-monitoring requirements related to NO<sub>x</sub> emissions such as fuel-to-water monitoring and fuel nitrogen content monitoring are subsumed by the more stringent BAAQMD requirement for continuous emission monitoring of NO<sub>x</sub>. The subsumed monitoring requirements for the Gas Turbine S-35 are summarized in Table IX-A of the permit.

#### **D. Alternate Operating Scenarios:**

No alternate operating scenario has been requested for this facility.

#### **E. Compliance Status:**

For existing plants, a compliance report from the Director of Compliance and Enforcement presents a review of the compliance record of each facility. Since this facility has not yet begun operations under the new ownership a compliance report is not appropriate.

#### **F. Differences between the Application and the Proposed Permit:**

The Title V permit application was originally submitted on October 3, 1995. This application is the basis for constructing the proposed Title V permit. However, as previously discussed, the site is expected to have new ownership and will be operated as a power plant rather than a paper manufacturing facility that includes a cogeneration facility. The primary effect on the proposed permit is that there are now fewer permitted sources at the site. There have been no significant changes to the applicable requirements for the remaining sources at the site since the original application was received.

## APPENDIX A

### GLOSSARY

**ACT**

Federal Clean Air Act

**APCO**

Air Pollution Control Officer: Head of Bay Area Air Quality Management District

**ARB**

Air Resources Board

**BAAQMD**

Bay Area Air Quality Management District

**BACT**

Best Available Control Technology

**Basis**

The underlying authority which allows the District to impose requirements.

**CAA**

The federal Clean Air Act

**CAAQS**

California Ambient Air Quality Standards

**CAPCOA**

California Air Pollution Control Officers Association

**CEQA**

California Environmental Quality Act

**CFR**

The Code of Federal Regulations. 40 CFR contains the implementing regulations for federal environmental statutes such as the Clean Air Act. Parts 50-99 of 40 CFR contain the requirements for air pollution programs.

**CO**

Carbon Monoxide

**Cumulative Increase**

The sum of permitted emissions from each new or modified source since a specified date pursuant to BAAQMD Rule 2-1-403, Permit Conditions (as amended by the District Board on 7/17/91) and SIP Rule 2-1-403, Permit Conditions (as approved by EPA on 6/23/95). Used to determine whether threshold-based requirements are triggered.

**District**

The Bay Area Air Quality Management District

**EG**

Emission Guidelines

**EPA**

The federal Environmental Protection Agency.

**Excluded**

Not subject to any District regulations.

**Federally Enforceable, FE**

All limitations and conditions which are enforceable by the Administrator of the EPA including those requirements developed pursuant to 40 CFR Part 51, subpart I (NSR), Part 52.21 (PSD), Part 60 (NSPS), Part 61 (NESHAPs), Part 63 (MACT), and Part 72 (Permits Regulation, Acid Rain), including limitations and conditions contained in operating permits issued under an EPA-approved program that has been incorporated into the SIP.

**FP**

Filterable Particulate as measured by BAAQMD Method ST-15, Particulate.

**H2S**

Hydrogen Sulfide

**HAP**

Hazardous Air Pollutant. Any pollutant listed pursuant to Section 112(b) of the Act. Also refers to the program mandated by Title I, Section 112, of the Act and implemented by 40 CFR Part 63.

**Major Facility**

A facility with potential emissions of: (1) at least 100 tons per year of regulated air pollutants, (2) at least 10 tons per year of any single hazardous air pollutant, and/or (3) at least 25 tons per year of any combination of hazardous air pollutants, or such lesser quantity of hazardous air pollutants as determined by the EPA administrator.

**MFR**

Major Facility Review. The District's term for the federal operating permit program mandated by Title V of the Federal Clean Air Act and implemented by District Regulation 2, Rule 6.

**MOP**

The District's Manual of Procedures.

**NAAQS**

National Ambient Air Quality Standards

**NESHAPS**

National Emission Standards for Hazardous Air Pollutants. See in 40 CFR Parts 61 and 63.

**NMHC**

Non-methane Hydrocarbons (Same as NMOC)

**NMOC**

Non-methane Organic Compounds (Same as NMHC)

**NOx**

Oxides of nitrogen.

**NSPS**

Standards of Performance for New Stationary Sources. Federal standards for emissions from new stationary sources. Mandated by Title I, Section 111 of the Federal Clean Air Act, and implemented by 40 CFR Part 60 and District Regulation 10.

**NSR**

New Source Review. A federal program for pre-construction review and permitting of new and modified sources of pollutants for which criteria have been established in accordance with Section 108 of the Federal Clean Air Act. Mandated by Title I of the Federal Clean Air Act and implemented by 40 CFR Parts 51 and 52 and District Regulation 2, Rule 2. (Note: There are additional NSR requirements mandated by the California Clean Air Act.)

**Offset Requirement**

A New Source Review requirement to provide federally enforceable emission offsets for the emissions from a new or modified source. Applies to emissions of POC, NO<sub>x</sub>, PM<sub>10</sub>, and SO<sub>2</sub>.

**Phase II Acid Rain Facility**

A facility that generates electricity for sale through fossil-fuel combustion and is not exempted by 40 CFR 72 from Titles IV and V of the Clean Air Act.

**POC**

Precursor Organic Compounds

**PM**

Particulate Matter

**PM<sub>10</sub>**

Particulate matter with aerodynamic equivalent diameter of less than or equal to 10 microns

**PSD**

Prevention of Significant Deterioration. A federal program for permitting new and modified sources of those air pollutants for which the District is classified "attainment" of the National Air Ambient Quality Standards. Mandated by Title I of the Act and implemented by both 40 CFR Part 52 and District Regulation 2, Rule 2.

**SIP**

State Implementation Plan. State and District programs and regulations approved by EPA and developed in order to attain the National Air Ambient Quality Standards. Mandated by Title I of the Act.

**SO<sub>2</sub>**

Sulfur dioxide

**THC**

Total Hydrocarbons (NMHC + Methane)

**Title V**

Title V of the federal Clean Air Act. Requires a federally enforceable operating permit program for major and certain other facilities.

**TOC**

Total Organic Compounds (NMOC + Methane, Same as THC)

**TPH**

Total Petroleum Hydrocarbons

**TRMP**

Toxic Risk Management Plan

**TSP**

Total Suspended Particulate

**VOC**

Volatile Organic Compounds

**Units of Measure:**

bhp	=	brake-horsepower
btu	=	British Thermal Unit
BTU	=	British Thermal Unit
°C	=	degrees Centigrade
cfm	=	cubic feet per minute
dscf	=	dry standard cubic feet
°F	=	degrees Fahrenheit
ft <sup>3</sup>	=	cubic feet
g	=	grams
gal	=	gallon
gpm	=	gallons per minute
gr	=	grains
hp	=	horsepower
hr	=	hour
lb	=	pound
lbmol	=	pound-mole
in	=	inches
max	=	maximum
m <sup>2</sup>	=	square meter
m <sup>3</sup>	=	cubic meters
min	=	minute
mm	=	million
MM	=	million
MM BTU	=	million BTU
MMcf	=	million cubic feet
Mg	=	mega grams
ppm	=	parts per million
ppmv	=	parts per million, by volume
ppmw	=	parts per million, by weight
psia	=	pounds per square inch, absolute
psig	=	pounds per square inch, gauge

Permit Evaluation and Statement of Basis: Site A2180, Gaylord Container Corp.  
1779 Wilbur Ave., Antioch, CA

scf	=	standard cubic feet
scfm	=	standard cubic feet per minute
yd	=	yard
yd <sup>3</sup>	=	cubic yards
yr	=	year